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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,306

09/25/2006

John Michael Clarkson

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EXAMINER

RAMDHANIE, BOBBY

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

06/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,306	<b>Applicant(s)</b> CLARKSON ET AL.	
	<b>Examiner</b> BOBBY RAMDHANIE	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14,23-25 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 14,23-25, & 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/16/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/03/2006, 12/27/2005</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group I in the reply filed on 04/11/08 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Drawings***

2. The drawings are objected to because of the following minor informalities: Figure 4, Units for the X and Y axes are not shown. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities: Applicants have disclosed that the copolymer blend may be selected from a number of Trademark named blends, however overtime the Trademark blend may change. Percentages of the copolymer blend recited in the Claims must be disclosed in the Specification.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 14 & 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al (US6312886).

Applicants' claims are toward a sample vessel.

Regarding Claims 14 & 25, Lee et al discloses a molded plastics material sample vessel comprising a tubular portion which has a maximum external cross sectional width of 5 millimeters (See Column 8 lines 25-27) and an internal sample volume of not more than 100 microliters (See Column 11 lines 1-3) wherein the tubular portion comprises a

tubular external wall with a thickness of from 0.01 to 2 mm (See Column 3 line 66 to Column 4 line 7). Lee et al discloses a sample volume below 100 microliters however, the volume of the container with or without the lid on it as shown in Figure 11 also discloses an empty space that encompasses a volume below 100 microliters).

6. Additional Disclosures Included: Claim 25: A molded plastics material sample vessel as claimed in claim 14 further comprising a neck portion that includes a cylindrical portion for receiving a closure means (See Figure 11. The neck may be defined by the top of the sample vessel.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 14, 23, & 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanley et al (US5604101) in view of Atwood et al (US5475610).

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10. Applicants' claims are toward a sample vessel.

11. Regarding Claims 14, 23, & 25, Hanley et al discloses a molded plastics material sample vessel comprising a tubular portion (See Figure 2 Item 14) which has a tubular portion comprises a tubular external wall with a thickness of from 0.01 to 2 mm (See Column 7 lines 47-50). Hanley does not explicitly disclose that the maximum external cross sectional width of 5 millimeters. Hanley et al does however, disclose that the widest diameter portion to be about 7 mm (See Column 7 lines 41 & 42). Atwood et al discloses a commercial thermal cycler which is adapted to fit sample vessels which have an internal sample volume of not more than 100 microliters (See Column 34 lines 25-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sample vessel of Hanley et al to have a maximum width of 5 mm or less, with the internal sample volume of no more than 100 microliters as shown for the MicroAmp® sample vessels, because Hanley suggests adapting the tube to fit into a commercial thermal cycler which would require the diameter of the tube of Hanley et al to essentially decrease and as a result, to be within 5 mm or less (See Hanley et al, Column 7 lines 35-39).

12. Additional Disclosures Included : Claim 23: Wherein the tubular portion: A). Has a truncated conical external surface (See Figure 2), the angle between a meridian of the truncated conical external surface and the axis of the cone being in the range of from 0.1 degrees to 10 degrees (See Column 7 lines 39-42), B). Closed at its narrower end (See Figure 2), and C). Open at its wider end (See Figure 2); Claim 25: A molded plastics material sample vessel as claimed in claim 14 further comprising a neck portion

that includes a cylindrical portion for receiving a closure means (See Figure 2 neck is at the top of the sample vessel).

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US6312886).

14. Applicants' claims are toward a sample vessel.

15. Regarding Claim 23, Lee et al discloses a molded plastics material sample vessel according to Claim 14, wherein the tubular portion: A). Has a truncated conical external surface (See Figure 11); B). Closed at its narrower end (See Figure 11), and C). Open at its wider end (See Figure 11); Lee et al does not disclose the angle between a meridian of the truncated conical external surface and the axis of the cone being in the range of from 0.1 degrees to 10 degrees. Lee et al does disclose the angle of the cone from the meridian to be approximately 45 degrees (See Figure 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the angle between a meridian of the truncated conical external surface and the axis of the cone to be within the range of from 0.1 degrees to 10 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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16. Claims 14, 24, & 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US7138091).

Applicants' claims are toward a sample vessel.

Regarding Claims 14, 24, & 25, Lee et al discloses a molded plastics material sample vessel comprising a tubular portion which has a maximum external cross sectional width of 5 millimeters (See Column 9 lines 28-29) and wherein the tubular portion comprises a tubular external wall with a thickness of from 0.01 to 2 mm (See Column 9 lines 34 & 35). Lee et al does not disclose an internal sample volume of not more than 100 microliters. Lee et al does disclose that the internal sample volume is about 500 microliters (See Column 9 lines 25 & 26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sample volume area of the cuvette to be a maximum internal sample volume of not more than 100 microliters because this would reduce the volume of sample needed by 80%.

Additional Disclosures Included: Claim 24: A molded plastics material sample vessel according to claim 14, further comprising a section of frustoconical shape directly or indirectly adjoining the tubular portion, which section increases in external diameter in the direction away from the tubular portion (See Figure 7 Item 84); Claim 25: A molded plastics material sample vessel as claimed in claim 14 further comprising a neck portion that includes a cylindrical portion for receiving a closure means (See Figure 7 neck is at the top of the sample vessel).



17. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US7138091) in view of Miyamoto et al (US6331591).

18. Applicants claim is toward a sample vessel.

19. Regarding Claim 28, Lee et al discloses all of the claimed features except wherein the sample vessel is made of a cycloolefin copolymer of ethylene and norbornene. Miyamoto et al discloses cycloolefin copolymer blends that comprise ethylene and norbornene (See Column 3 line 63 to Column 4 line 8). Miyamoto et al also discloses that these copolymer compositions have industrial applications for containers, bottles, cups, and packaging films (See Column 15 lines 62-67). It would have been obvious to one of ordinary skill in the art at the time the invention to modify the sample vessel of Lee et al with the copolymer compositions of Miyamoto et al because Miyamoto et al discloses these copolymers result in excellent impact resistance, which would be important because the reaction cuvette of Lee et al would essentially be required to be durable and withstand a cuvette-rewashing system (See Column 2 line 29), and be reused multiple times.

20. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US7138091) in view of Cassin et al (US5910287).

21. Applicants claim is toward a sample vessel.

22. Regarding Claim 28, Lee et al discloses all of the claimed features except wherein the sample vessel is made of a cycloolefin copolymer of ethylene and norbornene. Cassin et al discloses a plurality of sample vessels which are specifically made out of cycloolefin copolymers comprising ethylene and norbornene (See Column

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11 lines 20-24; the Topas® line includes cycloolefin blends comprising ethylene and norbornene). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the reaction cuvette of Lee et al with the cycloolefin copolymer blend comprising ethylene and norbornene from Cassin et al because Cassin et al discloses this blend possesses fluorescence and transmittance properties that approach (or even out perform) that of fused silica glass (See Column 1 lines 63-65). This would advantageous to Lee et al since Lee et al discloses the reaction cuvette may be used for fluorometric measurements (See Column 1 lines 25-31).

### ***Telephonic Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BOBBY RAMDHANIE whose telephone number is (571)270-3240. The examiner can normally be reached on Mon-Fri 8-5 (Alt Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/B. R./

/Walter D. Griffin/  
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